APPARATUS AND METHOD FOR SENSING ELECTROMAGNETIC RADIATION USING A TUNABLE DEVICE

ABSTRACT OF THE DISCLOSURE

A method for manufacturing a sensing device, such as a bolometer device or other devices. The method includes providing a substrate, e.g., silicon wafer. The method includes forming a first reflection layer overlying the substrate and forming a first electrode layer overlying the substrate. The method includes forming a sacrificial layer overlying a portion of the first reflection layer and a portion of the first electrode layer. The sacrificial layer is patterned using photolithography techniques. The patterned sacrificial layer corresponds to a cavity region. The method also forms a second electrode layer overlying the sacrificial layer and forms an elastic layer overlying the patterned sacrificial layer. The elastic layer encloses the cavity region corresponding to the patterned sacrificial layer. The method releases the sacrificial layer to form an opening in the cavity region.